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IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF ARIZONA

UNITED STATES OF AMERICA,	)	CR15-1723 TUC RCC (DTF)
	)	
Plaintiff,	)	<b>MOTION UNDER DAUBERT AND</b>
	)	<b>FRE 403 AND FRE 702 TO</b>
v.	)	<b>DETERMINE ADMISSIBILITY OF</b>
	)	<b>VIDEO EVIDENCE</b>
Lonnie Ray Swartz,	)	
	)	
Defendant.	)	

It is expected that excludable delay under Title 18, United States Code, § 3161(h)(1)(F) will occur because of this motion or an order based thereon.

The Defendant, LONNIE RAY SWARTZ, through counsel and pursuant to Rules 401, 403 and 702 of the Federal Rules of Evidence, and *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), hereby moves to preclude the testimony, opinions, and video re-creations generated by government expert James Tavernetti. Further, the video copies collected into evidence by the government following this

1 incident are unreliable and should be precluded as well. This motion is made for the  
2 reasons set forth in the accompanying Memorandum of Points and Authorities.  
3

## 4 **MEMORANDUM OF POINTS AND AUTHORITIES**

### 5 **I. FACTS**

6 The government has charged defendant Lonnie Swartz with second degree murder,  
7 “in the District of Arizona, within the special maritime and territorial jurisdiction of the  
8 United States.” in violation of 18 U.S.C. § 1111(a) and (b). (Doc. 1.)  
9

10 On October 10, 2012 Agent Swartz was standing within the State of Arizona when  
11 he discharged his firearm, causing the death of an individual in the Republic of Mexico  
12 (hereafter "the decedent") who, working as a member of a drug cartel, was throwing  
13 rocks at Swartz and other agents in an effort to impede the apprehension of two drug  
14 smugglers attempting to flee into Mexico.  
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17 This event was recorded by several Border Patrol pole cameras operating in the  
18 area. On the night of the shooting, the FBI responded and obtained a copy of the videos,  
19 but made no effort to preserve the original. Several years later, in October, 2015, efforts  
20 were made by law enforcement to obtain the original video captures of the incident that  
21 night. By this time, however, the original video (contained on a hard drive) had been lost  
22 or destroyed.  
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1 The government retained video expert James Tavernetti in an effort to make a re-  
2 creation of the shooting incident. Mr. Tavernetti did in fact make several video re-  
3 creations of the incident.<sup>1</sup> One of the videos purports to show Agent Swartz firing at the  
4 decedent from three different positions. Another purports to show the decedent moving  
5 after he collapsed to the ground (a critical fact in this case).  
6

7 The defense retained its own expert, Grant Fredericks from Forensic Video  
8 Solutions. Mr. Fredericks has concluded, essentially, that the videos created by the  
9 government's expert are completely unreliable given that they are based on a flawed copy  
10 of the original video, which was not preserved or made available to their expert. The  
11 defense expert opinions (previously disclosed to the government) are summarized as  
12 follows:  
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- 15 1. The government violated its own guidelines (SWGDE) when it acquired highly  
16 compressed copies of the two videos in this case instead of acquiring the originally  
17 recorded data of the videos from the Digital Video Recording System (DVR) that  
18 recorded them. The DVR was operated and managed by the government and was  
19 fully within its control and security at the time of the events.
- 20 2. The two pole-camera recorded videos disclosed by the government are highly  
21 compressed and deeply flawed copies of the original videos created and captured  
22 by the government's camera system and DVR.
- 23 3. The compression resulted in the complete loss of the original video data.
- 24 4. The altered data that was recovered and produced by the government created video  
25 images that merely repeat image detail, from image to image, rather than updating  
26 the actual events that occurred in front of the cameras. As a result, a substantial

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<sup>1</sup> The defense anticipates that its expert may testify at a hearing on the admissibility of the Tavernetti videos, at which time, they will be introduced into evidence, and their flaws exposed to the Court.

1 number of picture elements (pixels) are merely repeated from image to image.  
2 Much of the video images contain data from previous moments in time, but are  
3 reused, purporting to take place at later moments in time.

4 5. Because of the altered video, the following problems were created:

- 5 a. There are almost no frames and perhaps no frames at all in the existing video  
6 that represent an exact copy of a frame from the original two pole-camera  
7 videos.
  - 8 b. The pixel-copying that resulted from the high level of compression impacted  
9 important “target” areas of the two videos.
  - 10 c. The pixel-copying reflects an alteration of the reality captured by the two  
11 pole-camera videos.
  - 12 d. The pixel-copying resulted in a substantial degradation to the image quality  
13 and to the video information originally captured by the government’s two  
14 pole-cameras and DVRs.
  - 15 e. The compression and pixel-copying resulted in motion between frames that  
16 did not actually occur at the time of the events.
- 17 6. Mr. Tavernetti relied on the altered and inaccurate video copies that were  
18 recovered by the government for the totality of his analysis and for his subsequent  
19 demonstratives.
- 20 7. Mr. Tavernetti’s claim for the margin of error that may exist in his approximations  
21 regarding distance is not supported by the videos disclosed by the government.
- 22 8. Mr. Tavernetti’s “enhanced” videos create an apparent resolution or visual acuity  
23 that does not exist in the videos disclosed by the government.
- 24 9. Mr. Tavernetti’s “enhanced” videos are subjective manipulations that extend the  
25 reality depicted on the copied videos and that ultimately manufacturers a new  
26 reality based on elections he made using the controls on the various software tools  
he employed.
10. The videos disclosed by the government contain insufficient data to determine if  
the deceased moved at any given time.

1 11.The government video's compression, pixel-copying, camera switching from  
2 daylight to infrared and overall poor quality all could lead to the appearance of  
3 motion by the deceased that did not likely exist on the original video.

4 12.The video's compression, pixel-copying, camera switching from daylight to  
5 infrared and overall poor quality created motion in the copied video that does not  
6 actually exist in the original videos.

## 7 II. LAW

8 A district court has considerable discretion to admit or exclude expert testimony  
9 under [Federal Rule of Evidence 702](#). See [Gen. Elec. Co. v. Joiner](#), 522 U.S. 136, 138-39  
10 (1997); [Seatrax, Inc. v. Sonbeck Int'l, Inc.](#), 200 F.3d 358, 371 (5th Cir. 2000). [Rule 702](#)  
11 provides:

12 A witness who is qualified as an expert by knowledge, skill, experience,  
13 training, or education may testify in the form of an opinion or otherwise if: (a)  
14 the expert's scientific, technical, or other specialized knowledge will help the  
15 trier of fact to understand the evidence or to determine a fact in issue; (b) the  
16 testimony is based on sufficient facts or data; (c) the testimony is the product of  
17 reliable principles and methods; and (d) the expert has reliably applied the  
18 principles and methods to the facts of the case.

19 [Fed. R. Evid. 702](#).

20 In *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, the Supreme Court held that  
21 [Rule 702](#) requires the district court to act as a gatekeeper to ensure that "any and all  
22 scientific testimony or evidence admitted is not only relevant, but reliable." [509 U.S. at](#)  
23 [589](#); see also [Kumho Tire Co., Ltd. v. Carmichael](#), 526 U.S. 137, 147 (1999) (clarifying  
24 that the *Daubert* gatekeeping function applies to all forms of expert testimony). A **video**  
25 **re-creation** of an accident by an expert witness and his testimony is subject to *Daubert*'s  
26

1 gate-keeping function. *Robinson v. Missouri Pac. R.R. Co.*, 16 F.3d 1083, 1088-89 (10th  
2 Cir.1994)

3 A trial court's gatekeeping function thus involves a two-part inquiry into reliability  
4 and relevance. First, the Court must determine whether the proffered expert testimony is  
5 reliable. The party offering the testimony bears the burden of establishing its reliability  
6 by a preponderance of the evidence. See *Moore v. Ashland Chem. Inc.*, 151 F.3d 269, 276  
7 (5th Cir. 1998). The reliability inquiry requires the Court to assess whether the reasoning  
8 or methodology underlying the expert's testimony is valid. See *Daubert*, 509 U.S. at 592-  
9 93. The aim is to exclude expert testimony based merely on subjective belief or  
10 unsupported speculation. See *id.* at 590.

11 The Court in *Daubert* articulated a flexible, non-exhaustive, five-factor test to  
12 assess the reliability of an expert's methodology: (1) whether the expert's theory can be  
13 or has been tested; (2) whether the theory has been subject to peer review and  
14 publication; (3) the known or potential rate of error of a technique or theory when  
15 applied; (4) the existence and maintenance of standards and controls; and (5) the degree  
16 to which the technique or theory has been generally accepted in the scientific community.  
17 *Id.* at 593-95. The Supreme Court has emphasized, however, that these factors "do not  
18 constitute a 'definitive checklist or test.'" *Kumho*, 526 U.S. at 150 (quoting *Daubert*, 509  
19 U.S. at 593). Rather, district courts "must have considerable leeway in deciding in a  
20 particular case how to go about determining whether particular expert testimony is  
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1 reliable.” Id. at 152. Courts have also considered whether experts are “proposing to  
2 testify about matters growing naturally and directly out of research they have conducted  
3 independent of the litigation, or whether they have developed their opinions expressly for  
4 purposes of testifying,” Daubert v. Merrell Dow Pharms., Inc., 43 F.3d 1311, 1317 (9th  
5 Cir. 1995). They also have looked to whether the expert has adequately accounted for  
6 obvious alternative explanations, *see* Claar v. Burlington N.R.R., 29 F.3d 499 (9th Cir.  
7 1994), and whether the expert “is being as careful as he would be in his regular  
8 professional work outside his paid litigation consulting.” Sheehan v. Daily Racing Form,  
9 Inc., 104 F.3d 940, 942 (7th Cir. 1997).

12 As a general rule, questions relating to the bases and sources of an expert’s opinion  
13 affect the weight to be assigned that opinion rather than its admissibility and should be  
14 left for the [finder of fact]’s consideration.” United States v. 14.38 Acres of Land, More  
15 or Less Situated in Leflore Cty., Miss., 80 F.3d 1074, 1077 (5th Cir. 1996) (quoting  
16 Viterbo v. Dow Chem. Co., 826 F.2d 420, 422 (5th Cir. 1987)). Nonetheless, expert  
17 testimony “must be reliable at each and every step or else it is inadmissible. The  
18 reliability analysis applies to all aspects of an expert’s testimony: the methodology, the  
19 facts underlying the expert’s opinion, the link between the facts and the conclusion, *et*  
20 *alia*.” Knight v. Kirby Inland Marine Inc., 482 F.3d 347, 355 (5th Cir. 2007) (citation  
21 omitted). “Where the expert’s opinion is based on insufficient information, the analysis is  
22 unreliable.” Paz v. Brush Engineered Materials, Inc., 555 F.3d 383, 388 (5th Cir. 2009).

1 In *Joiner*, the Supreme Court explained that “nothing in either *Daubert* or the  
2 Federal Rules of Evidence requires a district court to admit opinion evidence that is  
3 connected to existing data only by the *ipse dixit*<sup>2</sup> of the expert.” [522 U.S. at 146](#). Rather,  
4 “[a] court may conclude that there is simply too great an analytical gap between the data  
5 and the opinion proffered.” *Id.* Reliability under *Daubert* is determined by looking at  
6 whether the reasoning or methodology underlying the testimony is scientifically valid,  
7 and relevance is determined by whether that reasoning or methodology properly can be  
8 applied to the facts in issue.  
9

10  
11 If the Court is satisfied that the expert’s testimony is reliable, the Court must then  
12 determine whether the expert’s analysis is relevant. The question here is whether the  
13 reasoning or methodology “fits” the facts of the case and will thereby assist the trier of  
14 fact to understand the evidence. See [Daubert, 509 U.S. at 591](#). “[F]undamentally  
15 unsupported” opinions “offer [ ] no expert assistance to the [trier of fact]” and should be  
16 excluded. [Guile v. United States, 422 F.3d 221, 227 \(5th Cir. 2005\)](#) (citing [Viterbo, 826](#)  
17 [F.2d at 422](#).  
18  
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20 Here, the government's expert's opinions are based on video re-creations that can  
21 by no means be considered reliable or satisfy the requirements of FRE 702. Specifically,  
22 this Court cannot be comfortable that Mr. Tavernetti's opinions are "based on sufficient  
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25 <sup>2</sup> [Latin, He himself said it.] *An unsupported statement that rests solely on the authority of the*  
26 *individual who makes it.*



1 facts or data" or that his "the testimony is the product of reliable principles and methods"  
2 as required by 702 (b) and (c). Mr. Tavernetti's opinions and video re-reactions would  
3 not, therefore, properly assist the jury in their fact-finding role. Rather, to allow Mr.  
4 Tavernetti to testify about his video re-creations would confuse and mislead the jury  
5 regarding this event. As such, this evidence must be precluded.  
6

### 7 **III. CONCLUSION**

8  
9 Based on the foregoing, the defendant requests that the opinions of James  
10 Tavernetti, and the video recreations created by the government expert, be precluded  
11 from trial. Additionally, the video copies seized by the government are inherently  
12 unreliable and should be precluded as well.  
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14 Respectfully submitted this 13<sup>th</sup> day of March, 2017:

15  
16 LAW OFFICES OF SEAN CHAPMAN, P.C.

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18 BY: /S/ Sean C. Chapman  
19 Sean Chapman  
20 Attorney for Defendant  
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**CERTIFICATE OF SERVICE**

The undersigned certifies that on March 13, 2017, caused to be electronically filed the foregoing document with the Clerk of the Court using the CM/ECF system which sent notification to the following:

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